

# Academic Physician Quarterly

A DEPARTMENT OF MEDICINE BULLETIN



**UF** UNIVERSITY of  
**FLORIDA**  
College of Medicine  
Jacksonville

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## CHAIRMAN'S MESSAGE

Dear colleagues:

I am happy to share with you the 2012 fall issue of the Academic Physician Quarterly (APQ). There are different ways of describing this season. Some have romanticized it while others see an opportunity for full-scale productivity and forging forward through what may follow as a harsh winter. William Shakespeare describes the season in the most elegant and unparalleled poetic manner:

*That time of year thou may'st in me behold,  
When yellow leaves, or none, or few, do hang  
Upon those boughs which shake against the cold,-  
Bare ruin'd choirs, where late the sweet birds sang.  
William Shakespeare, Sonnet LXXIII*



For us at the UF and Shands Jacksonville, we continue our diligence in achieving excellence in patient care, sometimes at the expense of sacrificing the opportunity to enjoy the mild weather fall brings us in Jacksonville.

Fall is also the season when we celebrate the Thanksgiving holiday. It's the time of the year when we reflect on all the joys and successes we experienced during the past year.

In this issue of the APQ, we have a focus topic on travel medicine. The University of Florida Travel Medicine Clinic is the longest running travel clinic in Jacksonville, and has served thousands of patients from Jacksonville and the surrounding area for 22 years.

I am also proud to report that Shands Jacksonville Medical Center was named one of the best regional hospitals in the Jacksonville metropolitan area, as rated by U.S. News & World Report. In addition, 33 University of Florida physicians who practice at the hospital and other UF & Shands Jacksonville locations across the region were listed as U.S. News Top Doctors.

Happy Thanksgiving.

Arshag D. Mooradian, MD  
Professor of Medicine  
Chairman, Department of Medicine

Rebecca Senko, RN, BSN, CTH  
Michael Sands, MD, MPH&TM, FIDSA

Division of Infectious Disease, Department of Medicine  
University of Florida College of Medicine-Jacksonville

## Travel Medicine

Travel medicine is an emerging specialty that has grown exponentially with the increase of international travel and the ever increasing interest in adventure travel.

The University of Florida Travel Medicine Clinic is the longest running travel clinic in Jacksonville, and has served thousands of patients from Jacksonville and the surrounding area for 22 years. The clinic serves patients of all ages from infants to the elderly.

Patients in the travel clinic have been tourists, business professionals, missionaries, students, athletes and local and national celebrities. Reasons for travel vary, including international adoption, missionary work, religious pilgrimage, business, study, adventure, tourism, medical care, expatriation, and visiting friends and family.

The clinic is directed by Michael Sands, MD, MPH&TM, FIDSA, who supervises Rebecca Senko, RN BSN, CTH®. Each patient is interviewed for evaluation of risks that the destination presents, the management of which may be further complicated by the patient's medical history, length of stay and activities. Recommendations are made for required vaccines, medications for prophylaxis and treatment of travel related illnesses, safety and advisability of travel. Counseling includes information about malaria, yellow fever and dengue risks, mosquito and insect avoidance, food and water precautions, safety and diplomatic concerns.

Weekly summaries of worldwide illness risk provided by the Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) and other contract sources are reviewed to

formulate and advise the patient of vaccine recommendations, outbreaks and current diplomatic and safety concerns for their travel destinations. The patient is provided with a folder of current printed information specific to the country the patient is visiting and all of the information related during the counseling session to review after the appointment. Patients are seen by appointment individually or as a group or family. An appointment lasts a minimum of 45 minutes, but may last much longer depending on the number of patients in the group or family and complexities presented by the destination, medical co-morbidities and activities.



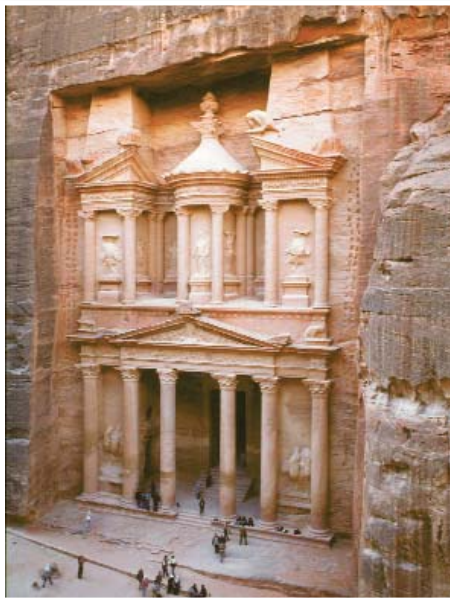
**Tulum, Mexico**

Challenges are many, but most challenging are families visiting friends and relatives in economically depressed and developing countries. Risks are numerous and the communication of these risks is sometimes difficult because of language barriers, cost of vaccines and the misconception that personal immunity to these risks persist because of past residency in their native country.

A common misconception by the general public is that vaccines will protect them from every conceivable risk, i.e. that vaccines and preventive medications provide a 100 percent barrier to acquiring illnesses. Patients are often surprised to find out that illnesses may still occur. Recognizing signs and symptoms of a disease and having a plan for medical care while traveling is imperative.

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This is particularly important for travelers with medical co-morbidities. Travelers who become infected may pose a risk to their own families, close contacts and other members of the community upon return. Recently, pertussis and rubeola have reemerged as diseases of travel due to exposure in crowded conditions in airports and on airplanes. These exposures and consequent infections have caused sporadic outbreaks in the U.S.



Petra, Jordan

have not received one Tdap booster. Measles-mumps-rubella vaccine (MMR) is also highly encouraged for all travelers born 1957 and after who have no history of the disease or who have not received two lifetime MMR vaccines.

Not all illnesses can be prevented by vaccines or medications. One example is dengue fever, which has become increasingly prevalent in Central America, South America, Asia, the Caribbean and Africa. Many travelers are unaware of the increased risk for dengue and other insect-borne diseases and have little understanding of how to adequately protect themselves from mosquitoes and other disease-transmitting insects. Each patient is counseled on the importance of insect precautions and also about specific measures that must be taken to optimize protection.

Traveler's diarrhea is the most common illness

reported by travelers. Many consider it a "rite of passage" and unavoidable. Patients are counseled on the importance of food and water precautions to avoid this commonly experienced malady and instructed on measures to take if food or water-borne illness does occur. This may save the patient the need for medical treatment while in a medically underserved country and the risk of unsafe medications or injections.

A destination to high altitude and the medical conditions it may cause and/or exacerbate is often overlooked by the inexperienced traveler. Symptoms of altitude sickness and the associated dangers may be misinterpreted. Travelers may be unaware that medication is available to ameliorate altitude sickness. Patients also rarely take into account medical conditions that may be impacted by extreme altitude such as heart, lung and sickle cell disease. Occasionally, patients must be advised to alter their itinerary or simply cancel their trip because of undue risks to health and well-being.

Working with other providers involved in the patient's care is often necessary. An example of this is the patient who is taking warfarin and needs to take antimalarial prophylaxis. Pre-travel trial dosing of antimalarial medication followed by measurement of the INR may be necessary to avoid catastrophic results while the patient is abroad.

Another example is an HIV positive patient traveling to a country where a yellow fever vaccine is required. Communication with the infectious disease physician managing the patient's case about the safety and advisability of receiving the yellow fever vaccination is necessary.

Travel medicine is vital to personal and public health, particularly as international travel continues to expand with new adventures into new territories and new ways to get there. Medical tourism and space tourism loom on the horizon and may present a whole new set of risks as yet to be seen.

To make an appointment with our Travel Clinic please call 904-383-1006.





**Carlos Palacio, MD**

**Associate Professor of Medicine,  
Division of General Internal  
Medicine**

**Associate Program Director,  
Internal Medicine Residency**

## EMR Pitfalls

A recent entry in JAMA's "A PIECE OF MY MIND" was brought to my attention that serves to illustrate the timely phenomenon of EMR implementation.

The author brings to light a few examples of his observations spanning a career before EMR implementation.

One issue raised is the confusion that today's EMR notes can bring due to the exorbitant length caused by copy-and-paste practices. Indeed, a note can be started at 7 a.m. and not be completed until 5 p.m. due to a typical five-stage process: copy-paste yesterday's note, import vital signs and labs, keep old/irrelevant CT/MRI reports and consultants' recommendations (these three stages are typically done before physically seeing a patient), update a few items (optional), sign the note.

The computerized time stamps on each of the elements stemming from this process can lead to a note that is narratively non-linear, lengthy, confusing and not reflective of the actual physician encounter. This presumes the physician was not physically next

to the patient during the full-time span from 7 a.m. through 5 p.m. Indeed, student notes could take 36 hours to be "written" and they may not reflect the actual thought processes of clinical decision-making.

As notes become longer with copy-pasting, more elements need amending, increasing the chance of errors.

EMR notes can be in contradistinction from written or dictated notes that summarize the day's events at the time the notes are generated because they are done in the same sitting. A typical practice with such notes is to create an addendum when an acute change in status occurs.

A reasonable practice may be to create/complete notes in the same sitting (or as quickly as possible) and to minimize copy-and-pasting, replacing this practice with a summary of key findings maintained in the problem list and summarizing results. Addenda can be employed as needed to supplement events of the day. Notes may then be reflective summaries of the events of the day. Otherwise, they risk becoming lengthy and muddled compilations of non-linear events with copy-and-pasted elements that are carried forward in perpetuity with little modification—and thought.

Sometimes less is more.

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## A CLINICAL CASE

**Sarada Jaimungal, MBBS; Ronald Brown, II MD; Alan Miller, MD**

**Division of Cardiology, Department of Medicine, University of Florida COM, Jacksonville**

## Myocardial Infarction in a Young Patient Due to an Occlusive Thrombus with Otherwise Angiographically Normal Coronary Arteries

### INTRODUCTION

Myocardial infarction (MI) due to an occlusive thrombus with otherwise angiographically normal coronary arteries tends to occur in young patients who have had no prior history of coronary artery disease (CAD). With the advent of intravascular ultrasound (IVUS), small atherosclerotic plaques are able to be identified. This case serves to demonstrate the use of IVUS in diagnosing concealed atherosclerosis.

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### CASE

A 28-year-old male presented to the emergency room with sudden onset of severe, crushing, retrosternal chest pain. He had a history of pacemaker insertion two years ago for symptomatic Mobitz type 2 heart block. His mother died at 41 years from a MI. He had a five pack year smoking history but denied cocaine use. On examination, the patient was diaphoretic and restless. Heart sounds were normal. There was no pericardial friction rub. EKG showed 3-4 mm ST segment elevation in leads II, III and aVF, 3-7 mm elevation in V3 to V5 and reciprocal ST depression in aVR and aVL (Figure 1). A transthoracic echocardi-

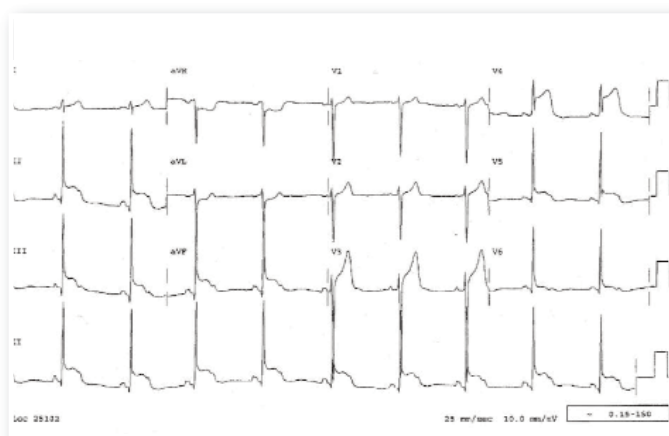


Figure 1: EKG shows ST elevation & reciprocal ST depression



Figure 2: Thrombotic occlusion of LAD

graphy (ECHO) was done urgently which revealed akinesis of the apical anterior segment, apical septum and the apex. Based on the EKG and ECHO findings, ST segment elevation MI was diagnosed. The patient underwent immediate left heart catheterization (LHC) that revealed a mid-100 percent left anterior descending (LAD) thrombotic occlusion with a large D<sub>1</sub> that bifurcated without angiographic disease (Figure 2). The thrombus was aspirated and IVUS was performed which revealed a large burden of soft plaque in the mid LAD up to the takeoff of the diagonal. The patient then underwent LAD stenting

with a bare metal stent. The left main, left circumflex and the right coronary arteries were angiographically normal. He was transferred to the Cardiac Care Unit where troponin levels were trended. This demonstrated the typical rise and fall seen in MI. Screening for hyperlipidemia, diabetes mellitus, thrombophilia and cocaine use were negative. He was started on aspirin, prasugrel, a beta blocker, a statin and an angiotensin converting enzyme inhibitor was discharged four days after presentation.

### DISCUSSION

The diagnosis of MI should be considered in the young person presenting with severe chest pain in order to avoid delayed diagnosis as occurred with this case. The main etiology of acute MI is plaque rupture in patients with coronary artery disease. However, 6-12 percent of patients with acute MI have angiographically normal coronary arteries.<sup>1</sup> The use of IVUS in this patient was able to identify atherosclerotic plaques in the wall of the culprit LAD lesion. This is an example of concealed atherosclerosis that IVUS was able to identify. Plaques that expand outward towards the outer layer of the vessel rather than towards the lumen do not cause changes in lumen diameter and hence will appear angiographically normal. This phenomenon is called external or positive remodeling.<sup>2</sup> Positive remodeling increases the probability of plaque rupture as wall stress is directly related to the vessel diameter.<sup>2</sup> IVUS is now being used as an adjunctive to cardiac catheterization to evaluate arterial positive remodeling.<sup>3</sup> Lipid laden atheromas appear hypoechoic and the plaque morphology, eccentricity and length can be evaluated by this technique. The complication rate is 1-3 percent with transient spasm being the most common complication.<sup>3</sup>

### CONCLUSIONS

This is an example of a young patient who presented with a myocardial infarction and was found to have an occlusive thrombus with otherwise angiographically normal coronary arteries. IVUS was useful to identify the underlying extra luminal atheroma. This tool is emerging as an important adjunct to LHC to identify occult atherosclerosis.

### REFERENCES

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**EDITORS NOTE:** The title of the "A Clinical Case" article in the previous edition (Volume 6, Issue 3) of the APQ newsletter had an incorrect title. The correct title of the article is "An Unusual Case of Disseminated Lymphadenopathy". We apologize for this error.

## RX UPDATES

By Brittany Jowers, PharmD  
PGY-2 Pharmacy Resident

### Anticoagulation Monitoring: Use of Anti-Xa Levels

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Enoxaparin (Lovenox®) is a low-molecular-weight heparin (LMWH), which has been studied extensively for the prevention and the treatment of various thrombotic events [e.g., deep vein thrombosis (DVT), pulmonary embolism (PE), acute coronary syndromes (ACS)]. In most patient populations, enoxaparin does not require dosage adjustments based on serum concentrations due to its predictable pharmacodynamic profile and weight-based dosing. However, in select patient populations, enoxaparin monitoring (i.e., plasma anti-Xa concentrations) can aid practitioners in determining if dosing is achieving optimal serum activity. Current literature supports anti-Xa monitoring in the following patient populations:

*Renal impairment [creatinine clearance (CrCl) ≤ 30 mL/min]*

*Pregnancy*

*Obesity (>150 kg or BMI >35 kg/m<sup>2</sup>)*

*Underweight patients (BMI <18.5 kg/m<sup>2</sup>)*

*Pediatric patients (<18 years)*



The anti-Xa level should be obtained four hours after the third dose of enoxaparin.

## MEET YOUR COLLEAGUES



**Bharat K. Gummadi, MD, Assistant Professor, Division of Cardiology**

Dr. Gummadi earned his medical degree from St. George's University School of Medicine in St. George's, Grenada. He completed his residency in Internal Medicine and his fellowships in Cardiovascular Disease and Interventional Cardiology at the University of Florida College of Medicine-Jacksonville.



**Andreea Poenariu, MD, Assistant Professor, Division of Nephrology & Hypertension**

Dr. Poenariu earned her medical degree from the University of Medicine and Pharmacy "Victor Babes" in Timisoara, Romania. She completed her residency in Internal Medicine at New York Downtown Hospital-Weill Medical College of Cornell University in New York City, NY. She completed her fellowship in Nephrology at Brown University in Providence, RI.



## Shands Jacksonville Named a Best Regional Hospital

Shands Jacksonville Medical Center was named one of the best regional hospitals in the Jacksonville metropolitan area, as rated by U.S. News & World Report.

Shands Jacksonville was ranked No. 2 of the 17 hospitals in the Jacksonville area and No. 11 in Florida in the magazine's 2012-13 rankings. In addition, 33 University of Florida physicians who practice at the hospital and other UF&Shands Jacksonville locations across the region were listed as U.S. News Top Doctors.

Shands Jacksonville had the greatest number of high-performing adult medical specialties in the Jacksonville area.

"Recognition such as this only comes when an organization is fully committed to providing the highest quality care to its patients," said Shands Jacksonville President and CEO Jim Burkhart. "I am proud of our Shands Jacksonville staff and University of Florida physicians for their hard work and dedication to deliver that level of care on a daily basis."

In compiling its rankings, U.S. News looked at 16 specialties. For 12 of those specialties, the magazine gave scores based on reputation, patient survival, patient safety and care-related factors including nursing and patient services.

A hospital had to be nationally ranked or considered high performing by U.S. News in at least one specialty to be considered a best hospital.

"Though newly arrived in Florida, it is clear to me our University of Florida doctors are among the best. It is really great to learn that US News agrees. In fact, with our Shands Jacksonville staff we treat a full range of patients including some of the most complex in the Southeast," said Daniel Wilson, MD, PhD, vice president of health affairs and dean

of the UF College of Medicine-Jacksonville. "Our physicians are internationally respected leaders and these accolades are truly well-deserved."

Shands Jacksonville's 12 high-performing specialties are:

- Cancer
- Cardiology and heart surgery
- Diabetes and endocrinology
- Ear, nose and throat
- Gastroenterology
- Geriatrics
- Gynecology
- Nephrology
- Neurology and neurosurgery
- Orthopedics
- Pulmonology
- Urology

Last year, Shands Jacksonville had five medical specialties listed as high-performing.

To be listed as high-performing in those 12 specialties this year, Shands Jacksonville had to be in the top 25 percent of all of the hospitals that qualified for possible national ranking, according to U.S. News. The rankings also considered patient satisfaction.

About 68 percent of patients rated the hospital at the highest or very high level, that's above the 63 percent state average and 67 percent national average.

Also, 81 percent of patients said doctors were always courteous and respectful, listened carefully and explained things clearly. That is also better than the state and national average.

U.S. News first started ranking hospitals in 1990 to provide information for patients with challenging conditions as they choose hospitals. The latest U.S. News rankings were announced last week. It ranked 732 hospitals nationwide, narrowed from almost 4,800 hospitals.

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The following UF College of Medicine–Jacksonville faculty physicians were listed as U.S. News Top Doctor:

Carlos Arce, MD	Fred Edwards, MD	Alan Miller, MD
Ziad Awad, MD	Linda Edwards, MD	Charles Nichols, MD
*Theodore Bass, MD	Eric Frykberg, MD	Vincent Ober, MD
Guy Benrubi, MD	Marcia Funderburk, MD	Stephan Oosterman, DO
*B. Hudson Berrey, MD	Luis Guzman, MD	Dat Pham, MD
Robert Booth, MD	Charles Heilig, MD	Jaime Ranieri, MD
Eric Ceithaml, MD	Andrew Kaunitz, MD	James Scolapio, MD
Doug Chapman, MD	Andrew Kerwin, MD	Karl Smith, MD
James Cury, MD	Steven Lavine, MD	William Solomon, MD
Harry D'Agostino, MD	*Robert Marcus, MD	Joseph Tepas III, MD
Isaac Delke, MD	*Shahla Masood, MD	David Wood, MD

\* Estimated by Castle Connolly, which lists top doctors, as among the top 1 percent in the nation in his or her specialty